



Question 217

National Group: India

Title: The patentability criterion of inventive step /non-obviousness

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Questions:

I. ANALYSIS OF CURRENT LAW AND CASE LAW

The Groups are invited to answer the following questions under their national laws:

Level of inventive step / non-obviousness

- 1. What is the standard for inventive step / non-obviousness in your jurisdiction?
How is it defined?**

Section 2(1)(ja) of The Indian patents Acts defines inventive step as “*Inventive step means a feature of an invention that involves a technical advancement compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art.*”

- 2. Has the standard changed in the last 20 years? Has the standard evolved with the technical / industrial evolution of your jurisdiction?**

Under the Indian Patents Act 1970, the definition of invention did not specifically include inventive step. Under the 1970 Act, invention was defined under Section 2(1) (j) as; “*invention*” means any new and useful-art, process, method or manner of manufacture; machine, apparatus and other article; substance produced by manufacture, and includes any new and useful improvement of any of them, and an alleged invention. There was also no definition of “inventive step” or “obviousness.” However, inventive step was a ground for opposition under Section 25(1)(e) as well as a ground for revocation under Section 64 (1) (f) of the act.

The Patent Amendment Act of 2002 (that came into effect on 20.05.2003) revised the definition of invention to: “*invention*” means a new product and process involving an inventive step and capable of industrial application. Further, “Inventive step” was defined

under Section 2 (1)(ja) of the Patents Act *"inventive step" means a feature that makes the invention not obvious to a person skilled in the art"*.

The Patent Amendment Act, 2005 (which came into effect retrospectively 01.01.2005), the definition of Inventive step was further revised to read as *"inventive step" means a feature of an invention that involve technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art*.

Thus the standard of inventive step has evolved to include economic significance of the invention apart from already existing criteria for determining inventive step.

3. Does your patent-granting authority publish examination guidelines on inventive step /non-obviousness? If yes, how useful and effective are the guidelines?

The Manual of Patent Office Practice and Procedure published by the Indian patent office, publishes examination guidelines on inventive step.

General principle (08.03.03.01)

Inventive step is a feature of an invention that involves a technical advancement compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art. An invention is patentable only if it involves one or more inventive step. In relation to the determination of patentability, an Examiner first conducts an enquiry as to the novelty of the claimed invention and then proceeds to conduct an enquiry on whether the claimed invention involves one or more inventive step.

Determination of inventive step (08.03.03.02)

- a) For determination of inventive step, all or any of the prior art(s) revealed during the search process to perform an enquiry as to whether such prior art(s) disclose(s) the claimed invention, are relied upon.
- b) Publications existing on the date of filing of complete specification would be considered as a prior art.
- c) However, Indian Applications filed before but published on or after the date of filing of complete specification of the instant application are considered as a prior claiming.
- d) Invention as a whole shall be considered. In other words, it is not sufficient to draw the conclusion that a claimed invention is obvious merely because individual parts of the claim taken separately are known or might be found to be obvious.
- e) If an invention lies merely in verifying the previous predictions, without substantially adding anything for technical advancement or economic significance in the art, the inventive step is lacking.
- f) For the purpose of establishing obviousness of the invention, citing a mosaic of prior arts is permissible, provided such prior art is enabling.
- g) If the invention is predictable based on the available prior art, merely requiring workshop improvement by a person skilled in the art, the inventive step is lacking.

4. Does the standard for inventive step / non-obviousness differ during examination versus during litigation or invalidity proceedings?

Under the Indian law inventiveness can be determined during four stages in the life of a patent. These stages are: examination, pre-grant opposition, post-grant opposition and revocation proceeding. The standard for inventive step is slightly lower in cases of pre-grant and post grant oppositions than in cases of revocation. Under section 25 (1) and 25(2) Grounds for pre-grant /post grant state "clearly does not involve an inventive step".

During examination at the patent office the examiner determines the inventive step based on his understanding of the disclosed invention and the prior art. During the court proceedings however, expert evidence is considered by the court in determining the inventive step. This procedural difference may result in different stands being taken by the patent office and the courts for the same invention.

Construction of claims and interpretation of prior art

5. How are the claims construed in your jurisdiction? Are they read literally, or as would be understood by a person skilled in the art?

The claims are read as they would be understood by a person skilled in the art.

In a Division Bench decision of the Delhi High Court reported in *Raj Prakash Vs. Mangat Ram Chowdhry and others.*, AIR 1978 Delhi 1, it has been held as under in paragraph 12 :

"12. We have therefore, to read the specifications and the claims from the point of view of the persons in the trade manufacturing film strip viewers. It is the pith and marrow of the invention claimed that has to be looked into and not get bogged down or involved in the detailed specifications and claims made by the parties who claim to be patentees or alleged violators....."

In *M/S.Tvs Motor Company Limited vs M/S.Bajaj Auto Limited* in 2009(40) PTC 689 (Mad) it was stated:

69. ...(viii) Patent specification should intend to be read by a person skilled in the relevant art but their construction is for the Court and to do so it is necessary for the Court to be informed as to the meaning of the technical words and phrases and what was the common general knowledge i.e., the knowledge that the notional skilled man would have.

6. Is it possible to read embodiments from the body of the specification into the claims?

Yes, it is possible to read the embodiments from the body of the specification into the claims. In fact in the most cited case in India it was held that:

“...the proper way to construe a specification is not to read the claims first and then see what the full description of the invention is, but first to read the description of the invention, in order that the mind may be prepared for what it is, that the invention is to be claimed, for the patentee cannot claim more than he desires to patent. In *Parkinson v. Simon Lord Esher M. R.* enunciated that as far as possible the claims must be so construed as to give an effective meaning to each of them, but the specification and the claims must be looked at and construed together. (*Biswanath Prasad Radhey Shyam Vs. Hindustan Metal Industries* (1979) 2 SCC, 511).

It has been further held in the matter of *K. Manivannan Vs. Shri. M. Mani.*, IPAB Order number 55/2009 (unreported), that:

The scope of the claim in a patent application is solely assessed on the basis of the claim language, but after giving the claim a broad construction in the light of the invention defined in the description of the specification as it would be interpreted by an ordinary person skilled in the art that is comparable with the prior art.

7. How is the prior art interpreted? Is it read literally or interpreted as would be understood by a person skilled in the art? Is reliance on inherent disclosures (aspects of the prior art that are not explicitly mentioned but would be understood to be present by a person skilled in the art) permitted?

The prior art is also interpreted as would be understood by a person skilled in the art on the date of filing the patent application.

It was held by the controller in 181/CHE/2007: “On the issue of obviousness the cited prior specification must be read in the light of the common general knowledge in the art immediately prior to the date of the patent.”

The reliance on inherent disclosures is permitted by the Indian patent office. It was held in the matter of *K. Manivannan Vs. Shri. M. Mani.*, IPAB Order number 55/2009 (unreported), that the “It is a well settled law that a prior art reference cited anticipates the claim when its limitations are not expressly found in that reference but are nonetheless inherent in it. Under the principle of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates.”

8. Do the answers to any of the questions above differ during examination versus during litigation?

As stated above, there is a slight difference in the standard of inventive step during pre-grant and post-grant opposition viz-a-viz revocation, however, the standard of construction of claims and interpretation of prior art is the same during all stages.

Combination or modification of prior art

- 9. Is it proper in your jurisdiction to find lack of inventive step or obviousness over a single prior art reference? If yes, and assuming the claim is novel over the prior art reference, what is required to provide the missing teaching(s)? Is argument sufficient? Is the level of the common general knowledge an issue to be considered?**

Yes, lack of inventive step may be found over a single prior art reference. The invention is obvious if what is missing from the teaching forms a part of the common general knowledge of a person skilled in the art on the priority date of the claim or if it is obvious to try.

The level of the common general knowledge is an important issue that is considered while determining the obviousness over a single prior art reference. What common general knowledge has been discussed in *K. Manivannan Vs. Shri. M. Mani.*, IPAB Order number 55/2009 (unreported) as:

“...common general knowledge is the common knowledge in the field to which the invention relates. It is generally known as common knowledge and regarded as a good basis for further research activity by those engaged in that art before it becomes part of their common stock of knowledge relating to the art, and then becoming part of the common general knowledge. It would appear therefore that when it is a question of common general knowledge i.e, knowledge available in a country for a long time, which every skilled worker in that field is, expected to know. Then such knowledge would be sufficient to invalidate a patent. Again such knowledge need not even be found in a particular document. In other words a patent application has to be accessed on the basis of not only what will be available from prior documents but also from the common general knowledge on the subject, which may or may not be available in any such document.”

In *Enercon India Ltd. Vs Aloy Wobben.*, IPAB Order number 226/2010(unreported), it was stated that:

Thus from the above cases, common general knowledge is the common knowledge in the field to which the invention relates. It is generally known as common knowledge and regarded as a good basis for further research activity by those engaged in that art before it becomes part of their common stock of knowledge relating to the art, and then becoming part of the common general knowledge. Therefore it means the information which at the date of the patent in question is known and accepted without question by those who are engaged in the art or science to which the alleged invention relates. It would also appear therefore, that when it is a question of common general knowledge i.e, knowledge available in a country for a long time, which every skilled worker in that field is, expected to know. Then such knowledge would be sufficient to invalidate a patent. Again such knowledge need not even be found in a particular document. In other words a patent application has to be accessed on the basis of not only what will be available from prior documents but also from the common general knowledge on the subject, which may or may not be available in any such document.

It can be taken as a well settled principle, that the common general knowledge is a knowledge that must be attributed to a skilled person, without which he may not be taken to be a skilled person in the art. Therefore it is a knowledge that every skilled person should acquire before he embarks on the problem for which the patent provides the solution. A patent can therefore be taken to be addressed to the skilled addressee, someone skilled in the subject matter of the invention. It is also important to differentiate between matter which was in the public domain at the priority date of the patent and matter which can properly be regarded as common general knowledge. Evidence that a particular fact is known or even well-known to a witness does not mean that it is common general knowledge. Likewise, a piece of information disclosed in a scientific paper does not become common general knowledge merely because it is widely read. On the other hand, it is not necessary to show that the information is known in the sense that the skilled person has memorized it. Material which is known to exist and to which the skilled person would refer as a matter of course if he cannot remember it is clearly part of the common general knowledge.

Some Indian patent applications that have been rejected by the Controller over the lack of inventive step over a single prior art are 01075/DELNP/2004, 00121/DELNP/2004, 1878/DELNP/2003, 287/MUM/2006, 181/CHE/2007, 278/MUM/2006.

10. What is required to combine two or more prior art references? Is an explicit teaching or motivation to combine required?

Combining of two or more prior art references is allowed. It was held in *Glaverbel S.A Vs Dave Rose & Ors.*, 2010-PTC-630 that:

"The inventive step of course has to be tested on the basis of the techniques and technologies which are existing and preexisting to the date of the patent and to find the same as to whether the same is obvious to the inventor of the patent.

That being the position, there would be no harm in relying upon the prior arts so far as it makes sense to show that by studying these prior arts, the inventors job is reduced to sitting in the workshop

Thus, this court holds that mosaicing may not be relevant to undermine novelty in the circumstances of the case but obviousness has to be seen while looking into the techniques and technologies of existing and preexisting state of art.

In the case of *J. Mitra & Co. Pvt. Ltd. Vs. Kesar Medicament.*, PTC 568 Del the learned Judge quoted Terrell on Patents (16th Edition, 2006) wherein the concept of mosaicing is explained as under:-

"The mosaicing of individual documents or prior uses is not permissible, unless it can be shown that the skilled person, confronted with a particular citation, would turn to some other citation to supplement the information from the first. Whether he would do so is a question of fact". A further reference was made to the decision in *Technograph v. Mills and Rockley*: (1972) R.P.C 346 where Lord Reid

observed:- "When dealing with obviousness, unlike novelty, it is permissible to make a mosaic. out of the relevant documents, but it must be a mosaic which can be put together by an unimaginative man with no inventive capacity."

Referring to Bilcare Ltd. v. Amartara Pvt. Ltd: 2007 (34) PTC 419 (Del), the learned Judge noted that as per the legal position set out in the said decision, it would not be a defence to show that various components in the patented product are known separately. The combination of such components may be patentable. The Court concluded that it would not be permissible for a defendant to rely on different documents disclosing different components / features of the product to plead that the product of the patent was known.

11. When two or more prior art references are combined, how relevant is the closeness of the technical field to what is being claimed? How relevant is the problem the inventor of the claim in question was trying to solve?

The closeness of the technical field to what is being claimed is relevant when two or more prior art references are combined as only those documents can be combined that may be combined by an unimaginative man with no inventive capacity.

12. Is it permitted in your jurisdiction to combine more than two references to show lack of inventive step or obviousness? Is the standard different from when only two references are combined?

In Indian it is permitted to combine more than two references to show lack of inventive step. The Manual of Patent Office Practice and Procedure states that "... *citing a mosaic of prior arts is permissible, provided such prior art is enabling.*" No, there is no difference in standard when only two references are combined.

13. Do the answers to any of the questions above differ during examination versus during litigation?

As stated above, there is a slight difference in the standard of inventive step during pre-grant and post-grant opposition viz-viz revocation, however, the standard of prior art is the same during all stages.

Technical Problem

14. What role, if any, does the technical problem to be solved play in determining inventive step or non-obviousness?

During the determination of inventive step, the technical problem to be solved by the applicant/patentee may be considered. The technical problem determines the area in which the search for prior art documents is carried out. Technical problem also determines what forms a part of the common general knowledge of a person skilled in the art on the priority date of the claim. If the solution to the technical problem is obvious to a person skilled in the art, the claimed invention is considered to not involve an inventive step.

15. To what degree, if any, must the technical problem be disclosed or identified in the specification?

There is no statutory requirement under the Indian law to disclose technical problem in the specification.

The Manual of Patent Office Practice and Procedure, however states that as a practice prior art and problem to be solved must be stated in the specification. The Manual of Patent Office Practice and Procedure, also requires the applicant to disclose the object of the invention in the specification:

Prior Art and problem to be solved (05.03.05)

This part should indicate the status of the technology in the field of invention with reference to developments in the field, patents and pending patent applications in the specific art. When the invention relates to an improvement on an existing product or process, a short statement of the closest prior art known to the applicant shall also be given. However, the description should fully and particularly describe the invention, by clearly distinguishing it from such a closest prior art, known to the applicant.

Objects of the Invention (05.03.06)

The purpose of this part is to clearly bring out the necessity of the invention. It shall clearly mention the technical problems associated with the existing technology and the solution for that, bringing out the differences between the claimed invention and the prior art. The solution sought by the invention should be clearly brought out as object(s) of inventions with statements like —It has already been proposed|| followed by the objects which the inventions has in view e.g. —The principal object of this invention is||, —Another object of this invention is||, —A further object of this invention is||etc.

Advantageous effects

16. What role, if any, do advantageous effects play in determining inventive step or non obviousness?

Advantageous effect is one of the considerations that is taken into account while determining inventive step. However, such an advantageous effect must not be considered as obvious to a person of the art.

In *Ram Narain Kher Vs. Ambassador Industries New Delhi and Anr.* AIR 1976 Delhi 87, it was observed in para 17:

It is equally true that even en the invention "was not itself new" but "the Particular use of it for the purpose described in combination with the other elements of the

system, and producing the advantageous results", would be a sufficient element of novelty to support the patent.

17. Must the advantageous effects be disclosed in the as-filed specification?

Section 10(4)(a) of the Indian Patents Act, requires the applicant to fully and particularly describe the invention and its operation or use and the method by which it is to be preformed. Section 10(4)(b) further requires the applicant to disclose the best method of performing the invention which is known to the applicant and for which he is entitled to claim protection.

The Manual of Patent Office Practice and Procedure states that the applicant is required to disclose the advantageous effect or the synergistic effect clearly in the description by way of comparison at the time of filing of the application. (08.03.05.05)

Furthermore, in India, the examiners require that the inventive concept be stated in the main claim. The Manual of Patent Office Practice and Procedure also that:

n) If the invention is an improvement on a product or a process existing in the prior art, the invention should be distinguished very clearly by characterizing the claim with respect to the prior art. In such cases, the claim will have two parts separated by the word 'characterized by' or 'wherein'. The part coming before 'characterized by' is the prior art while that comes after will be the features of the invention. (05.03.16)

It was also held in *Ram Narain Kher Vs. Ambassador Industries New Delhi and Anr.* AIR 1976 Delhi 87.:

16. It is no doubt true that the aim made is addressed to the skilled Persons in the art or trade and not to a common man yet there can be no escape from the fact that the novelty of the, claim or the advantage derived by the, invention has to be succinctly stated in the claim and must not be left to an inference raised on a general review of the specification.

18. Is it possible to have later-submitted data considered by the Examiner?

Subsequent submissions to show inventive step for inventions can be accepted in a reply to the office action as a further support of synergistic effect. Such submitted data may also be incorporated in the Specification, subject to the provisions of Section 59 that only allow amendment of specification by way of disclaimer, correction, explanation or for the purpose of incorporation of actual fact. Such amendment must fall wholly within the scope of a claim of the specification before the amendment. (The Manual of Patent Office Practice and Procedure 08.03.05.04, 08.03.05.05)

However, in practice submitting such comparative data at later stage may not be allowed by the examiner. It was held in *Novartis A G Vs. Union of India and others* IPAB Order No.100/2009:

A patent is granted on the basis of its full disclosure of the invention in the specification furnished on the priority date of the application. Even an amendment is also not allowed in the specification which in substance is not disclosed therein (see section 59). The patent law debars an applicant a grant of patent for belated discovery of a new thing which is not disclosed which may or may not be pivotal in determining patentability. Thus, the Appellant is not entitled to make out a case for patent in its favour by importing a new matter in the specification which was later on discovered/established. The patentability, therefore, if any, will have to be established on the basis of original disclosure contained in the specification.

It was held by the Controller in 2145/DELNP/2004 that

“With regard to comparative data with respect to the prior art, it may be noted that when the applicant is claiming a composition which is already in prior art he needs to show its efficacy with a comparative data while claiming the improved properties of a composition. In such situation it is imperative for the applicant to give such comparison in the specification itself rather than generating after issuing the examination report. (Controller decision 2145/DELNP/2004)”

19. How “real” must the advantageous effects be? Are paper or hypothetical examples sufficient?

In order to satisfy inventive step on the basis of advantageous effect, it is necessary to incorporate scientific data comparing the prior art over which the advantageous effect is claimed in the specification. Moreover the data must be incorporated in the specification at the time of filing the application. (*Novartis A G Vs. Union of India and others* IPAB Order No.100/2009)

20. Do the answers to any of the questions above differ during examination versus during litigation?

No, there is no difference with respect to advantageous effect during examination versus litigation.

Teaching away

21. Does your jurisdiction recognize teaching away as a factor in favor of inventive step /non-obviousness? Must the teaching be explicit?

There are no specific Indian judgments that refer to teaching away as a factor in favor of inventive step/non-obviousness.

22. Among the other factors supporting inventive step / non-obviousness, how important is teaching away?

As discussed above, teaching away as a factor in favor of inventive step has not been discussed in any Indian Judgment.

23. Is there any difference in how teaching away is applied during examination versus in litigation?

Please see answer to questions above.

Secondary considerations

24. Are secondary considerations recognized in your jurisdiction?

Yes, secondary considerations are recognized in India for the determination of inventive step.

25. If yes, what are the accepted secondary considerations? How and to what degree must they be proven? Is a close connection between the *claimed* invention and the secondary considerations required?

Economic significance:

One important secondary consideration considered in India is economic significance that has been added during the 2005 amendment of the Act. The definition of the inventive step under the amended Indian Patents Act, provides economic significance as a criteria for assessing inventive step. Moreover, the use of the word “or” between technical advancement and economic significance in the definition denotes that economic significance has been given similar importance as technical advancement.

26. Do the answers to any of the questions above differ during examination versus during litigation?

No, there is no difference between examination and litigation

Other considerations

27. In addition to the subjects discussed in questions 4 - 26 above, are there other issues, tests, or factors that are taken into consideration in determining inventive step/ non-obviousness in your jurisdiction? If yes, please describe these issues, tests, or factors.

Test

28. What is the specific statement of the test for inventive step/non-obviousness in your jurisdiction? Is there jurisprudence or other authoritative literature interpreting the meaning of such test and , if so, provide a brief summary of such interpretation.

The test for inventive step has been set out in the landmark decision by the Apex Court in *Biswanath Prasad Radhey Shyam Vs. Hindustan Metal Industries* (1979) 2 SCC, 511. While dealing with the meaning of the words 'inventive step' it was held as follows:

It is important to bear in mind that in order to be patentable an improvement on something known before or a combination of different matters already known, should be something more than a mere workshop improvement; and must independently satisfy the test of invention or an "inventive step". To be patentable the improvement or the combination must produce a new result or a new article or a better or cheaper article than before. The combination of old known integers may be so combined that by their working inter-relation they produce a new process or improved result. Mere collection of more than one integers or things, not involving the exercise of any inventive faculty, does not qualify for the grant of a patent.

The same has been rephrased in The Manual of Patent Office Practice and Procedure as:

g) If the invention is predictable based on the available prior art, merely requiring workshop improvement by a person skilled in the art, the inventive step is lacking

In addition to above mentioned statement, Indian courts have also used the Windsurfing test given in *Windsurfing International Inc v TaburMarine (Great Britain) Ltd* [1985] RPC 59, where it was held that the question of obviousness will have to be considered taking the following four steps, namely,

- i. Identifying the inventive concept;
- ii. What is the common general knowledge that is known to the skilled person in the art;
- iii. Identifying the differences between the cited matter and alleged invention;
- iv. To decide that these steps or differences would become an obvious invention to the skilled person in the art, without having any knowledge of the present invention.

29. Does such test differ during examination versus during litigation?

No, there is no difference in test for determining inventive step during examination versus during litigation

Patent granting authorities versus courts

- 30. If there are areas not already described above where the approach to inventive step/non-obviousness taken during examination diverges from that taken by courts, please describe these areas.**

Please see question number 4

- 31. Is divergence in approach to inventive step / non-obviousness between the courts and the patent granting authority in your jurisdiction problematic?**

Regional and national patent granting authorities

- 32. If you have two patent granting authorities covering your jurisdiction, do they diverge in their approach to inventive step / non-obviousness?**

India has four patent offices that are authorized to grant patents. However, the standard of determining inventive step is same in patent offices.

- 33. If yes, is this problematic?**

No, there is no difference in determining inventive step between the four patent offices in India.

II. PROPOSALS FOR HARMONIZATION

The Groups are invited to put forward proposals for the adoption of harmonised rules in relation to the patentability criteria for inventive step / non-obviousness. More specifically, the Groups are invited to answer the following questions without regard to their national laws:

- 34. Is harmonization of inventive step / non-obviousness desirable?**
- 35. Is it possible to find a standard for inventive step / non-obviousness that would be universally acceptable?**
- 36. Please propose a definition for inventive step / non-obviousness that you would consider to be broadly acceptable.**
- 37. Please propose an approach to the application of this definition that could be used by examiners and by courts in determining inventive step / non-obviousness.**